## ADVANCED TOOL SYSTEMS

## **ABSTRACT**

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A tool has a pair of elongate housings adapted to be joined together in a housing assembly for enclosing and supporting a drive mechanism between a pair of oppositely disposed rotatable elements. The drive mechanism provides a transfer of power between the rotatable elements so that rotation of one rotatable element at one input end of the housing assembly will effect driven rotation of the other rotatable element at an output end of the housing assembly. The input end of the housing is provided with a first interlock configuration overlying and encircling the input end rotatable element. A motor mechanism is coupled to the input end of the housing assembly and has a rotatable drive shaft which passes entirely through and drives the input end rotatable element. The motor mechanism is integrally formed with a second interlock configuration identical to and matingly engageable with the first interlock configuration. A retaining element is engaged with the drive shaft to couple the motor mechanism and tool housing together.